

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. - 6. (cancelled)

7. (currently amended) Apparatus for producing a digital bitstream representing an interactive program guide for a digital information distribution system comprising:

a video compositor for compositing background imagery with at least one video frame sequence to form a background frame sequence;

a plurality of program guide compositors for compositing a plurality of program guide graphics onto said background frame sequence, where a different program guide graphic is composited onto said background frame sequence to form a plurality of program guide frame sequences that represent individual program guide pages;

a plurality of encoders for separately encoding each of said program guide frame sequences to form a plurality of bitstreams;

a multiplexer for multiplexing said plurality of bitstreams into a transport stream; and

a program guide graphics generator for producing said program guide graphics and foreground overlay graphics.

8. (currently amended) The apparatus of claim 7 wherein each of said plurality of program guide compositors comprises:

an alpha framestore for storing a bitmap array of weighing functions that control transparency of said program guide graphics with respect to said background imagery;

a video framestore for buffering said program guide graphics on a frame-by-frame basis to ensure alignment with said background imagery and said at least one video frame sequence; and

a means for combining said program guide graphics with said background imagery and said at least one video frame sequence.

9. (currently amended) The apparatus of claim 7, wherein said video compositor comprises:

a first serial-to-parallel converter adapted for receiving said background imagery and a first video frame sequence;

a first compositor, coupled to said first serial-to-parallel converter for synchronizing frames from said background imagery and ~~a~~said first video frame sequence, said first compositor combining said first video frame sequence at a first position in said background imagery; and

a second serial-to-parallel converter adapted for receiving a second video frame sequence;

a second compositor, coupled to an output of said second serial-to-parallel converter and an output of said first compositor, for synchronizing output information from said first compositor with said second video frame sequence from said second serial-to-parallel converter, said second compositor combining said second video frame sequence at a second position in said background imagery.

10. (currently amended) The apparatus of claim 9, wherein said first and second compositors respectively resize said first and second video frame sequences prior to ~~merging~~ combining said background imagery and said first and second video frame sequences.

11. (currently amended) The apparatus of claim ~~8~~9 wherein an output of said second compositor is coupled to a third serial-to-parallel converter to produce a serial bitstream of said background frame sequence.

12. (original) The apparatus of claim 7 wherein said encoders are MPEG type encoders.

13. (currently amended) The apparatus of claim 7, wherein said plurality of program guide frame sequences comprises fifteen program guide sequences ~~are~~-formed, encoded, and ~~contained~~ multiplexed in a ~~common~~ said transport stream.

14. (currently amended) The apparatus of claim 13, further comprising: an audio encoder, for encoding an audio signal associated with one of the at least one video sequence[[s]]; said multiplexer multiplexing the encoded audio signal into the transport stream.

15. (currently amended) The apparatus of claim 13, wherein said multiplexer multiplexes foreground program guide data into said ~~common~~-transport stream.

16. (currently amended) A Method for producing a digital bitstream representing an interactive program guide for a digital information distribution system, comprising:

compositing background imagery with at least one video frame sequence to form a background frame sequence;

compositing a plurality of program guide graphics onto said background frame sequence, where a different program guide graphic is composited onto said background frame sequence to form a plurality of program guide frame sequences that represent individual program guide pages;

encoding each of said program guide frame sequences to form a plurality of bitstreams;
multiplexing said plurality of bitstreams into a transport stream; and
producing said program guide graphics and foreground overlay graphics.

17. (currently amended) The method of claim 16, wherein the step of compositing a plurality of program guide graphics onto said background frame sequence comprises, for each of the plurality of program guide graphics:

storing a bitmap array of weighing functions that control transparency of said program guide graphics with respect to said background imagery;

buffering said program guide graphics on a frame-by-frame basis to ensure alignment with said background imagery and said at least one video frame sequence; and

combining said program guide graphics with said background imagery and said at least one video frame sequence.

18. (currently amended) The method of claim 16, wherein said compositing background imagery with said at least one video frame sequence to form said background frame sequence ~~video-compositor~~ comprises:

receiving said background imagery and a first video frame sequence using a first serial-to-parallel converter;

synchronizing frames from said background imagery and a said first video frame sequence using a first compositor coupled to said first serial-to-parallel converter;

combining said first video frame sequence at a first position in said background imagery using said first compositor;~~and~~
receiving a second video frame sequence using a second serial-to-parallel converter;
synchronizing output information from said first compositor with said second video frame sequence from said second serial-to-parallel converter using a second compositor; and
combining said second video frame sequence at a second position in said background imagery using said second compositor.

19. (currently amended) The method of claim 18, further comprising:
resizing said first and second video frame sequences using said first and second compositors respectively prior to ~~merging~~ combining said background imagery and said first and second video frame sequences.
20. (previously presented) The method of claim 16, wherein said step of encoding comprises encoding according to an MPEG format.
21. (previously presented) The apparatus of claim 7 wherein said foreground overlay graphics comprises grid imagery.
22. (previously presented) The apparatus of claim 7 wherein said foreground overlay graphics comprises highlight imagery.
23. (previously presented) The method of claim 16 wherein said foreground overlay graphics comprises grid imagery.
24. (previously presented) The method of claim 16 wherein said foreground overlay graphics comprises highlight imagery.